

CLAIMS:

1. A method for measuring the arterial pressure waveform invasively or non-invasively from a peripheral artery, wherein the waveforms are accurately recorded and secondary pressure waveforms are identified.
2. A method according to claim 1 wherein a series of pressure waveforms are ensemble-averaged into a single waveform to provide consistency of waveform detail.
3. A method according to claim 1 wherein the waveforms are subjected to harmonic analysis and moduli of their harmonic components are compared.
4. A method according to claim 1 wherein a hypotensive individual is confirmed to have the higher (second and above) greater than the first harmonic can be considered as having vasoconstriction as a cause of hypotension.
5. A method according to claim 1 wherein a hypotensive individual in sinus rhythm or without significant arrhythmia is confirmed to have the lowest fundamental harmonic, at heart rate less than 120/min, dominant over all other harmonics and can be concluded as likely to have vasodilatation as the cause of hypertension.
6. A method according to any one of claims 1 to 5 wherein, in the hypotensive individual, amplitude of the primary wave (peak to wave foot) is compared to amplitude of the secondary waveform (secondary peak to wave

foot) and the secondary wave confirmed to have amplitude less than 25% of the initial waveform as denoting hypotension due to vasodilation whereas amplitude of the secondary waveform greater than 30% of the initial wave denotes hypotension due to vasoconstriction and acute blood loss, cardiac failure, tamponade or pulmonary embolism.